EXHIBIT H

PART 2

Q. With regard to the anti-trip latch -- I am going to use Linemaster's terminology -- would you agree that Linemaster manufactured a foot control with the anti-trip latch in 1977?

A. Yes, in fact I have the patent for the toe latch in my file; and the patent was issued in 1960.

Q. When is -- when were you -- to the best of your knowledge when did Linemaster first make that foot control with an anti-trip mechanism available to the public?

A. I don't have any opinion on it. I just don't know.

Q. And in 1977 am I correct that Linemaster also had a foot control that had the anti-trip mechanism and the front gate?

A. Again I don't know when they came out on the market with it. I would suspect as an assumption on my part that it was available at that time but I don't know.

Q. You don't have an opinion either way?

A. No, it is really not an opinion matter.

Q. You don't have knowledge either way?

A. No.

Q. Your report says the foot control originally supplied with the Heim press brake cannot be determined; is that your testimony today?

A. Yes.

Q. It indicates that from your looking at the photographs supplied to you that you believe that the foot control involved in this accident was not an original Linemaster product; am I correct?

A. Yes, because of the -- not only the photographs but there were witnesses from Cory Manufacturing who talked about the toe latch and that when compared to the engineering drawing from Heim that showed they didn't start utilizing the pedal with the toe latch until 1982 led me to the conclusion that it was probably not the pedal that originally accompanied the machine in 1978 because it was not until four years later that they started using the style that had the toe latch.

Q. The drawing you are talking to is the A-470 drawing?

A. I don't remember the number of the drawing but I think I can verify it quickly.

Yes, the drawing that I have is A-470-D.

MR. HARTMAN: Let's mark that, please.

(Whereupon, SWITALSKI Deposition Exhibit No. 1 was marked for identification.)
(Discussion off the written record but on the video record.)

BY MR. HARTMAN:

Q. The drawing that you are referring to has been marked and identified as Switalski Exhibit No. 1; am I correct?

A. Yes.

Q. And that's the drawing that indicates to you that the switch originally provided with the Line -- with the Heim press brake was one that did not have the anti-trip latch, correct?

A. Correct.

Q. What information in that document are you relying upon to make that conclusion?

A. There is the standard list of changes and the changes are dated -- well, Change No. 1 is November 9, 1982.

And Change No. 2 is dated December, looks like 20th, 1982. On December 20, 1982, Part No. A-470, which is the anti-trip foot control from Linemaster, was added to the drawing. Prior to

that it didn't appear on this drawing.

Q. Okay. Now are you aware that Heim has indicated that they could not -- because of the lapse of time, they could not identify what foot pedal accompanied the press brake that Ms. Lindquist was involved with?

MR. ROBINSON: Objection to the form, misleading and inaccurate.

THE WITNESS: Yes, I am aware of Heim's testimony in that regard.

BY MR. HARTMAN:

Q. And what is your understanding of their testimony?

A. That they -- just as you indicated, they cannot identify the specific foot control that accompanied the original press in 1978.

Q. And you are aware that Heim supplied us the document that you are relying upon?

A. Yes.

Q. Based on that document alone what information do you have that Heim -- what information do you have that allows you to conclude that that document relates to the press brake at hand?

MR. ROBINSON: The press brake what?
BY MR. HARTMAN:
Q. Involved in this case.
A. In the title block it says used on all presses.
Q. Right.
A. So in the years prior to 1982 the only information that would have been on this drawing would have included a foot control with no toe latch. The part of the title block here where it says use on all presses has no change indication associated with it. So that would tend to indicate that the Linemaster foot control with no toe latch was in use on all presses prior to December 1982.
Q. Could it also mean that all presses is referring to mechanical punch presses and not brake presses?
MR. ROBINSON: Object to form.
BY MR. HARTMAN:
Q. Could that be one interpretation?
A. Anything is possible.
Q. Could that be one legitimate interpretation?
A. Again, it is a question that involves is

something possible, yes.

Q. Could it be that that is reflecting that there is a change with regard to replacement parts?

MR. ROBINSON: I will object to the form.

THE WITNESS: I doubt it because replacement parts for foot switches would have to come directly from Linemaster, not Heim because they don't manufacture the foot switch or any part of the assembly.

BY MR. HARTMAN:

Q. I am sorry. I didn't mean replacement parts of the foot switch. I am talking about replacement parts in the sense of replacement foot control.

MR. ROBINSON: Same objection.

THE WITNESS: Again I can't deny that it is not possible. I don't read it that way.

BY MR. HARTMAN:

Q. But Heim can't tell us what's going on with regard to that and you are giving me an opinion as to what your understanding is. I am trying to find out what information you have.

MR. ROBINSON: Hold on. Let me object. You can't testify, Mr. Hartman, as to what Heim can and

can't tell you. You have inaccurately stated Mr. Heim's position to the witness, and it is not appropriate for you to phrase your question with your statement to try to get that into the record somehow.

BY MR. HARTMAN:

Q. So you are making assumptions about what that document is. You don't have any independent thoughts if that document relates to the press brake that was involved in this Lindquist accident?

MR. ROBINSON: Object to the form. I don't know what that means, independent knowledge.

THE WITNESS: The only knowledge I can have of this document is through my own reading and engineering understanding of how specifications of this type are typically written. If Heim did it some other way, they are going to have to tell us.

BY MR. HARTMAN:

Q. Okay. You just don't know what way Heim did it, am I correct?

A. I wasn't there.

Q. So you don't know how Heim did it?

A. Correct.

Q. And you don't know how Heim interpreted

that drawing?

A. Correct.

Q. You also indicate that you base your decision, your testimony that you don't know what foot control was originally supplied with the Heim press based on, I believe, that the actual foot pedal was black?

A. The first photograph that I was shown had the appearance of a black pedal and in my own -- of my own personal knowledge of Linemaster foot switches, the pedals are painted the same orange as the rest of the cover and the housing. That in conjunction with testimony from one of the Cory Manufacturing individuals that said they used two kinds of foot pedals at Cory, one being black and one being orange, certainly left the door open to the potential that I pointed out in my report that perhaps this is a hybrid of the black foot pedal with Linemaster's cover placed over it, what I referred to as a hybrid foot pedal.

Q. Are you giving an opinion to a reasonable degree of scientific certainty that this was a hybrid foot pedal?

A. No.

Q. It is just one of the possibilities, correct?
A. Yes.
Q. Would you show me in your file what photo you relied upon to make a determination that the feet pedal was black?
A. Yes, in fact I recall that there was a label on the picture of a No. 3. Let me find it.
Q. May I see it, please?
MR. HARTMAN: Paul, would you like to see it?
MR. ROBINSON: No, I appreciate that.
MR. HARTMAN: Can we mark this as Switalski Exhibit No. 2?
(Whereupon, SWITALSKI Deposition Exhibit No. 2 was marked for identification.)
BY MR. HARTMAN:
Q. The picture that gave rise to the belief of a possibility that it was a hybrid pedal that you relied upon is Picture No. 3 indicated in Switalski Exhibit No. 2; am I correct?
A. Yes.
Q. Okay. Would you expect that a foot pedal that was 20 to 30 years old in use might be --

might have had the orange paint worn off of it and looked black from grease, grime, dirt and that other type of stuff?

MR. ROBINSON: Object to the form of that question.

THE WITNESS: Certainly a good possibility.

BY MR. HARTMAN:

Q. And if that foot pedal was orange or had indications that it was orange at one time that would go against your -- I don't want to say opinion -- belief, that there is a possibility that the foot pedal was a hybrid; am I correct?

A. Yes.

Q. Do you intend on giving the opinion that this was a hybrid foot pedal?

A. No, I don't anticipate giving that opinion, only pointing out that the potential existed because there is simply not adequate documentation of the foot pedal to I think draw a conclusion that this was a hybrid.

Q. But you are basing your decision on the hybrid on the foot pedal itself being black and other black foot pedals being used in the factory?

MR. ROBINSON: Object to the form. You can

assume he is going to give all of the opinions that have been set out in his report, that being one of them.

MR. HARTMAN: You can say whatever you want --

MR. ROBINSON: That's what the reason for producing the report was, to identify the opinions and beliefs and the facts that he relied upon in coming to his opinions. So I want you to make -- I want to make sure the record is clear that you can assume that everything that's contained in his report will be the subject of testimony at the trial, if there is such a trial.

BY MR. HARTMAN:

Q. Sir, can you give an opinion to a reasonable degree of engineering certainty that this is a hybrid pedal?

A. No, I cannot.

Q. And if the foot pedal itself was orange or had remnants of orange paint on it, that would work against any type of belief that this was a hybrid pedal; am I correct?

MR. ROBINSON: I will object to the form of that question.

THE WITNESS: Yes.

BY MR. HARTMAN:

Q. In your report on page 3 you indicate, and I am going to read it to you -- actually, please read for me the last paragraph of your report on page 3.

A. All right. On the other hand Cory witnesses as well as the report prepared by Barnett and Ulmenstein identify a foot control equipped with a maintained latch mechanism. This feature requires full insertion of the user's foot into the pedal housing to push the latch forward with the toe before the pedal can be depressed. Linemaster patented this feature in 1960 and to my knowledge manufacturers the only foot switch with this safety feature. This foot control currently called the Hercules anti-trip foot switch, field shield model, is intended to help prevent accidental actuation.

Q. Does the Hercules anti-trip foot switch, full shield model, prevent, help to prevent -- let me strike that again. Let me start over.

Does the Hercules anti-trip foot switch, full shield model, help prevent accidental activation?

A. Yes, it does.

Q. And how does it help protect against accidental activation?

A. Well, if we compare a Hercules foot switch with no toe latch versus one that has a toe latch and let's say the same operator accidentally steps on either pedal but inserts their foot only halfway into the foot switch, the Hercules without the toe latch will be activated. The Hercules with the toe latch will not be activated. So easy conclusion to draw that the toe latch helps prevent accidental activation.

Q. Have you done any studies with regard to the Hercules anti-trip foot switch, full shield model?

A. The only studies are the ones that were -- Professor Barnett had been conducting that I was involved with.

Q. And what studies would they be?

A. The ones where I participated as a student and then after I became an employee, as a proctor to others in Professor Barnett's classes.

Q. Do you know what articles written by Professor Barnett contain that information? Do you know the titles?

A. There were three different publications that Professor Barnett co-authored that addressed foot controls, and I have them here in my file. I will read the titles.

Q. Let's mark them, if you don't mind. I will return all of this to you -- the court reporter will once she gets the copies.

A. The first or the earliest publication is one called Philosophical Aspects of Dangerous Safety Systems, which goes back to December 1982.

MR. HARTMAN: Mark that as No. 3.

(Whereupon, SWITALSKI Deposition Exhibit No. 3 was marked for identification.)

THE WITNESS: The second publication is entitled Foot Controls: Riding the Pedal, and I see here that Professor Barnett was the sole author on this one. And it is dated July 1997.

(Whereupon, SWITALSKI Deposition Exhibit No. 4 was marked for identification.)

MR. HARTMAN: Mark that as No. 4.

THE WITNESS: And the third publication is called or entitled Foot Control Activation -

Reciprocating Versus Pivoting, and this one was published September 1998.

(Whereupon, SWITALSKI Deposition Exhibit No. 5 was marked for identification.)

BY MR. HARTMAN:

Q. Now with regard to Exhibits 3 through 5, the articles that were either authored solely by Professor Barnett or in conjunction with other individuals, which of those articles were you involved in?

A. All of them.

Q. So you were involved in -- so let's start with Exhibit No. 3, Philosophical Aspects of Dangerous Safety Systems; what was your involvement in that?

A. At the time this was written Professor Barnett and I were both involved in cases that had to do with sidewalk ramps, which are also covered in the paper, overhead guards for forklift trucks, which are covered in the paper, and foot switches, particularly that is the Allen Bradley style that is illustrated along with the foot switch.

Certainly the conclusion that Professor

Barnett drew with regard to this style of foot switch encouraging the practice of riding the pedal is an outcoming of the foot switch research that he was conducting, I was participating in and helping him conduct in the early '80s with other classes.

Q. And the foot switch you are talking about is the Allen Bradley foot switch?

A. Yes, that's the one illustrated. The foot switch he is talking about is any foot switch with a front gate. The one selected for the illustration was the Allen Bradley because it was the most notorious for seeing people in the field riding the pedal.

Q. And would you read the paragraph that you are relying upon?

A. Yes.

Many punch press manufacturers have completely blunted the attack of the plaintiff's bar on foot switches by adopting the mouse trap design i.e., foot switches guarded on all sides with a hinged door at the foot port. Recently completed research has confirmed what some press manufacturers hypothesized, the mouse trap design is unsafe for most punch press operations since it

encourages the practice of riding the pedal.

Q. The mouse trap operation?

A. Yes.

Q. Would you agree that the mouse trap operation is one by which the foot pedal instead of swiveling up, swivels down?

A. Yes, that term mouse trap design is specifically associated with the Allen Bradley.

Q. And with regard to the article that you are referring to, which we have identified as Exhibit No. 3, your involvement was based on helping with prior research that was included in that article as it relates to foot control operation?

A. Yes.

Q. You weren't involved in authoring that report?

A. No, I did not write any of those actual words that are in this paper, no.

Q. You weren't involved with regard to editorializing that?

A. Typically Professor Barnett would circulate these safety briefs to everyone on his staff before they went to the printer. So in that

regard, yes, I was involved in the editorial process. There is nothing that sticks in my mind with regard to Bill Switalski saying make such and such a change before you print it.

Q. So you would agree that your involvement was based on prior research that happened to be included in that report?

MR. ROBINSON: I will object. It is misleading and ignores what he just said about his reading of the -- and editorializing as well.

THE WITNESS: Yes.

BY MR. HARTMAN:

Q. Other than the paragraph that you read, is there anything else that you did with regard Professor Barnett that was included in that report?

A. Well, the field observations that led to some of the other products used as examples in this paper are products that Professor Barnett and I worked on together, including as I earlier indicated the overhead guard on forklift trucks and sidewalk ramps.

Q. So you had some prior research involved in those areas but with regard to foot controls your involvement was based on prior research?

A. Yes.
Q. And other than him including some of that research in it, you had no involvement with regard to the portions that you just read to us?
A. Correct.
Q. The portion you just read to us talks about an Allen Bradley mouse trap design?
A. It doesn't specifically identify Allen Bradley as the product manufacturer but he and I both know it is. I don't think Allen Bradley is named in the paper.
Q. Okay. Well, it refers to a mouse trap design which is one where it swivels from the bottom, you pull the thing down and slide your foot in, correct?
A. Yes.
Q. And it refers to punch presses, correct?
A. Yes, it does.
Q. There is no mention relating to press brakes for that matter, is there?
A. There is not.
Q. And punch presses and press brakes are different machines?
A. Yes, they are.

Q. I have a couple of questions for you with regard to ANSI; and because it has been brought up in this case, I think it is important for us to talk about.

And, again, I am trying to understand what ANSI is, so please listen carefully and if there is something that I am misstating, don't feel uncomfortable in correcting me.

A. All right.

Q. Am I correct that with regard to the ANSI standard that covers punch presses -- strike that. I am sorry.

Am I correct that with regard to the ANSI standard covering press brakes, ANSI does not tell you what type of foot pedal or foot control to have?

MR. ROBINSON: I will object to the form. What ANSI are you referring to?

MR. HARTMAN: The 1972 standard -- or was it '73?

THE WITNESS: '73 was the first for the.

BY MR. HARTMAN:

Q. Am I correct that ANSI -- the ANSI standard 1973 covering press brakes does not tell

you what type of safety mechanisms to have, it basically tells you a minimum standard of what it wants?

MR. ROBINSON: Object to the form of that question.

THE WITNESS: The standard states that the foot control has to be protected against accidental actuation and specifically must protect against someone stepping onto the pedal which gave rise to the requirement for at least a top shield.

ANSI was very specific -- or I should say the code committee that wrote that was very specific about using the word onto the pedal as opposed to into the pedal. They recognized that normal use of the foot control involved stepping into it. So there is no way to prevent someone who accidentally actuates it from stepping into it. So they use the word accidental activation by stepping onto the pedal, in other words, from above again, which gave rise to the top shield.

The illustration of an acceptable foot control that's used in the standard shows both a top shield and side shields. It does not show a toe latch. It does not show a front gate.

BY MR. HARTMAN:

Q. But if it had a toe latch or a front gate and it had the cover to protect you from stepping onto it, it would be an ANSI-approved shield?

MR. ROBINSON: Objection -- excuse me -- I will object to the form of the question.

THE WITNESS: ANSI does not approve products but it would certainly -- it would certainly include all of the required features. I don't think the committee would exclude the foot control with additional features.

BY MR. HARTMAN:

Q. I am sorry. So it would be an ANSI, would the term be, acceptable shield then?

A. Yes.

Q. So -- I am going to show you Exhibit No. 4, which has shields from 1 to No. 12. I would ask you to look at all of those shields.

A. All right.

Q. Is there any shield that's located in Exhibit 1, 1 through 12 that would not be an ANSI-acceptable shield?

A. There is not. There are no uncovered foot switches shown in this publication.

Q. So those shields are all acceptable?
A. Yes.
Q. And all of those shields that are acceptable by ANSI would be approved to be used on a press brake?
A. In 1973, yes.
Q. And in 1978 as well?
A. And in '78, yes.
Q. In fact today all of those shields would be approved as well; am I correct?
A. I would have to look at the specific language again but the only exception I -- that there might be a possibility today is the side shields.
Q. That they would have to have side shields?
A. The side shields too, yes, but other than that one distinction, yes, they would be acceptable today.
Q. So at least we know as of today foot pedals 5 through 12 would be approved to be used on a press brake?
A. Yes.
Q. And they would be acceptable to ANSI?
A. Yes.

Q. And in 1978 all 12 of the foot pedals located would be acceptable by ANSI and approved to be put on press brakes?

A. Yes, and I should add just one additional thing to my answer and that is ANSI, as we just said, would find foot switches 5 through 12 perfectly acceptable providing that they are used in conjunction with either point of operation guarding or safe distance.

Q. Okay. Safe distance is a HOOD requirement, am I correct?

MR. ROBINSON: Excuse me. I will object to the form of the question.

BY MR. HARTMAN:

Q. Do you know what HOOD is?

A. Yes, hands-out-of-dye.

Q. And safe distancing is -- guarding by safe distance is a HOOD method of safeguarding issue, correct?

MR. ROBINSON: Object to the form of the question.

THE WITNESS: It is a method of achieving HOOD, yes.

BY MR. HARTMAN:

Q. Would you agree that with regard to HOOD requirements, hands-out-of-dye, that is directed at the employer as it relates to setting up the machine and the operation; am I correct?

A. Oh, absolutely, yes.

With the advent of the 2002 press brake standard there was one additional requirement placed on foot switch use that wasn't there in earlier additions. And that is that when safe distance method of safeguarding was used on a press brake, the foot switch also had to be physically anchored into the floor at the safe distance. Prior to that time the foot switch could be placed on the floor at a safe distance; but beginning with 2002, it had to be physically anchored to the floor.

BY MR. HARTMAN:

Q. And that would be a requirement for the employer in the setup of the operation?

A. Yes.

Q. HOOD is an employer directive with regards to how to operate the press brake?

MR. ROBINSON: I will object to the form.

I don't know if you mean that to be exclusive the way you are saying it or not.

MR. HARTMAN: Yes, I do. I mean it to be exclusive.

MR. ROBINSON: Object to form.

THE WITNESS: Can I hear the question again, please?

BY MR. HARTMAN:

Q. Am I correct that HOOD are instructions directed to the employer as to how to set up the press brake?

A. Yes, it is something that only the employer is in a position to carry out. I will certainly go along with that, yes.

Q. The operator isn't the one to set up the HOOD procedure, it is the employer and the setup individual?

MR. ROBINSON: I will object to the form of the question.

THE WITNESS: Certainly the operator can. In most press shops, it is somebody that ranks above the press operator is supposed to control that and supervise it.

BY MR. HARTMAN:

Q. Someone of a supervisory procedure sets up the HOOD procedure?

A. I mean there are shops where the same person that sets up also operates, smaller shops especially.

Q. Someone that has setup experience?

A. Yes.

Q. But the general operator that doesn't have setup experience does not know how to set up the HOOD procedure; am I correct?

MR. ROBINSON: Object to the form of the question.

THE WITNESS: Would not necessarily be expected to know how to set up the HOOD procedure, yes.

BY MR. HARTMAN:

Q. So the basic operator without setup experience would not be expected to institute the HOOD procedures?

MR. ROBINSON: I will object, form, speculation.

BY MR. HARTMAN:

Q. Go ahead.

A. Not necessarily.

Q. Well, based on your experience.
A. Yes --
MR. ROBINSON: Objection, speculation. My problem is there are so many scenarios involved and he is wanting the witness to comment on who-knows-what scenario and limit it to an always or never. Object to the form and speculative nature of the question.
BY MR. HARTMAN:
Q. Sir, you understand -- you are here as an expert; am I correct?
A. Yes.
Q. And you understand you are here to testify and your report indicates with regard to certain industry practices; am I correct?
A. Yes.
Q. And you know what HOOD is; am I correct?
A. Yes, I do.
Q. And am I correct that you know who HOOD is directed to --
MR. ROBINSON: We have gone through all of these. Objection, Asked and answered. We have done all of this already.

BY MR. HARTMAN:

Q. Sir, you know who HOOD is intended to reach; am I correct?

A. Yes.

Q. And who is HOOD intended to reach?

A. The employer and more specifically the supervisory level within that employer that oversees the press operator.

Q. Thank you.

MR. ROBINSON: Same objections that I have raised to all of previous questions on this issue.

BY MR. HARTMAN:

Q. With regard to Switalski Exhibit No. 3, Philosophical Aspects of Dangerous Safety Systems, what was your involvement in that report -- I am sorry -- that was the fourth switch one. I apologize. I will withdraw that question.

Have you had an opportunity to review and evaluate this paper?

A. Many, many times.

Q. Okay. Do you rely upon the conclusions in this paper to formulate your opinions?

A. Yes.

Q. Do you find this paper to be authoritative

in your field of study?

A. Yes, I do.

Q. With regard to Foot Controls: Riding the Pedal, Exhibit No. 4, you are a student involved in the experiments in this paper; am I correct?

A. Yes, I was.

Q. Were you a proctor on this paper?

A. Yes, I was.

Q. And what did you do in your capacity as a proctor?

A. Subsequent to Professor Barnett hiring me in 1980 while he would continue to periodically teach his mechanical safety class at the college and he had subsequent classes do virtually the same foot switch experiments, foot switch research that I was involved in as a student. And the only difference perhaps being as more styles of foot switches would come onto the market, the collection of foot switches that Professor Barnett had expanded.

So when it came foot switch testing day in his class, I would drive him down to the school, take all of the different foot switches which were mounted on plywood boards, set them up for the

students and just basically collect data as each student would activate the different foot switches.

BY MR. HARTMAN:

Q. Is -- am I correct that that data you collected would be how fast, how many times they could get their foot into the switch and operate it?

A. Yes, the foot switches were not physically or electrically attached to any piece of equipment. They were just taken into the classroom. So I mean other than how many times can the foot switch be activated in a given length of time, there is not a whole lot else that the students can really do with them.

Q. So that's what you did, you proctored that test there?

A. Yes.

Q. Okay. Professor Barnett is the author of this. Did you have any involvement in writing this report?

A. My involvement in that paper was basically with all of the illustrations of the foot switches, although, a graphic artist produced the final illustration, my role was to see that the

appropriate illustrations of each foot switch are what made it into that paper.

Q. Okay. So when we are talking about the pictures identified as 1 through 12 and -- would it also include Figure No. 2, foot control?

A. Yes.

Q. And that would be the extent of your involvement in authoring the Foot Control: Riding the Pedal article identified as Exhibit No. 4?

A. Right, I would have made the original free-hand sketch of those foot pedals and then another person on Triodyne's staff who was a graphic artist did the final drawing but that was the way of conveying to the graphic artist what needed to be illustrated.

Q. So the substance of the article was Professor Barnett?

A. Yes, it is.

Q. And his alone according to?

MR. ROBINSON: I will object to the form of the question.

BY MR. HARTMAN:

Q. To the best of your knowledge?

MR. ROBINSON: It has nothing to do with his

knowledge. I object to the form of the question.
BY MR. HARTMAN:
Q. So the substance of article was written by Professor Barnett?
A. Yes.
Q. And it reflects his ideas and his understanding and his interpretation of the data?
A. Yes.
Q. Have you relied upon Exhibit No. 4 to formulate your opinions in this case?
A. Yes, I have.
Q. Do you hold Foot Controls: Riding the Pedal Article, which is identified as Exhibit No. 4, to be authoritative in your field?
A. Yes.
Q. Are you aware of any other articles not -- strike that.
Are you aware of other articles that were not written by Triodyne that reflect on the issue of riding the pedal?
A. Yes. Although I am not in the position to cite names of authors and titles of papers, I am certainly aware of work by other authors that drew a correlation between both punch press and press

brake injuries with the practice of riding the pedal, basically injury statistics type of publications that -- it is rather well-documented in the literature of that era that there is a strong correlation between the practice of riding the pedal on an inadequately guarded punch press or press brake and amputation injuries.

BY MR. HARTMAN:

Q. Is -- are those articles cited in your documents reviewed or in the substance of your report that you -- that's dated March 13, 2006, that we have identified as Switalski Exhibit 1?

A. They are not.

Q. Are you intending on testifying as to the substance of those articles in this case?

A. At this point, no.

Q. Will you provide those articles to me in the event that you intend on testifying?

A. I would be happy to.

MR. ROBINSON: For that purpose the lawyers do that. That's not an appropriate request of the witness.

BY MR. HARTMAN:

Q. Am I correct that as of the preparation of

your report, which has been marked as Exhibit No. 1, you did not rely upon those articles to formulate the opinions in that report?

A. That's correct.

Q. You relied on the articles that we have marked as 2 -- excuse me -- 3 through 5?

A. That's correct.

Q. Let's talk about Foot Control Activation - Reciprocating Versus Pivoting, which has been marked as Switalski Exhibit No. 5. Are you familiar with that article?

A. I am.

Q. Have you read the article?

A. Yes.

Q. What was your involvement with regard to that article?

A. Well, again I was both a participant as well as a proctor in later foot switch experiments to compare operator balance with regard to the two different means of activating the foot pedals that that paper addresses, the reciprocating versus the pivoting on the heel, as I described a little earlier.

So in that regard that was the reason

I pulled the paper out for this particular project but I recognize that since the foot switch involved in Ms. Lindquist's accident had side shields, the pivoting the motion versus reciprocating motion is kind of an irrelevant issue because that's not what was going on here.

Q. But you did review this article in preparing your report?

A. Yes.

Q. Is it an article that you would rely upon in formulating engineering opinions?

A. Yes, it is.

Q. Do you consider the article marked as Exhibit No. 5, Foot Control Activation - Reciprocating Versus Pivoting an authoritative article?

A. Yes.

Q. Were you involved at all in the preparation of the text of this article?

A. I was not.

Q. So the textual matter, the opinions and decisions and analysis are of individuals other than yourself?

A. Yes.

Q. Has Mr. Robinson informed you that Professor Barnett made an amendment to his report where he changed the word to illustrated as it relates to mechanical foot pedals and the ANSI B11.3, 1973 standard?

A. This is not sounding familiar quite yet.

Q. Well, on -- I will rephrase --

A. I mean that Mr. Robinson told me about a correction that Professor Barnett made having to do with the model of one of the -- the foot switch models referred to in his report. That doesn't sound like that's where you are going.

Q. No, it is not. There was another correction he made with Professor Barnett. I would like to direct you to page 4 of your report.

A. All right.

Q. In the second paragraph it indicates, in the report authored by Barnett and Ulmenstein the claim is made that ANSI B11.3 '73 is the first ANSI standard developed for press brake. As such it only addressed mechanical foot pedals.

Are you aware that Professor Barnett had advised Mr. Robinson yesterday during his testimony that the word address was incorrect and it should

have been illustrated?

A. No, I was not aware of that change in Professor Barnett's testimony.

Q. So if he changed his report to illustrated, would he be correct in that statement?

A. No, I don't believe so. The electric foot switch is an illustration in that standard.

Q. So you think they are both in there?

A. Yes.

Q. Did you also read the report on the next paragraph of Professor Barnett where he described what was contained in the ANSI B11.3 '73. Did you read Professor Barnett's report --

A. Yes.

Q. Am I correct in spite of the report originally saying it only addressed mechanical foot pedals, he describes the fact in the text of the report, he indicates that it talks about foot controls as well?

A. Yes.

Q. So the report does tell you that the ANSI B11.3 1973 standards talks about foot pedals and foot controls; am I correct?

A. I believe it does.

Q. And there is a difference between a foot pedal and foot control?

A. Yes.

Q. Would you tell us what the difference is to your understanding?

A. The code committee drew the distinction when they drafted the definition of these terms. To try and simplify it as much as I can, the foot pedal refers to the older style mechanical lever that one would push down with their foot whereas foot control is making reference to a, perhaps an electric foot control or a pneumatic air-operated foot control that isn't -- doesn't have the mechanical attachment to the press brake.

Q. Okay. And on a foot pedal when it is attached to a press brake, the mandate is that it shall be protected against inadvertent activation, correct?

A. Yes.

MR. ROBINSON: I will object to the form of the question.

BY MR. HARTMAN:

Q. Well, there is a different standard for a foot pedal as opposed to a foot control; am

I correct?

A. Yes.

Q. And when you have a foot pedal attached to the press brake, it must be protected from inadvertent activation?

A. Yes, and in fact I think the same is true for both foot pedal and foot control. There are inadvertent actuation requirements placed on both styles.

Q. Well, I believe that foot controls require that shall be protected so as to inhibit accidental actuation on a foot control; am I correct?

Do you want to look at the standard?

A. Sure.

MR. ROBINSON: Object to the form of the question.

MR. HARTMAN: Okay.

THE WITNESS: I think I found what confirms what I was saying, both the foot control as well as the foot pedal both have --

MR. ROBINSON: Let him finish.

Go ahead.

THE WITNESS: -- both have requirements for preventing, minimizing, however you care to say it,

inadvertent actuation.

BY MR. HARTMAN:

Q. I am sorry. I don't mean to interrupt.

A. I am done.

Q. Tell me what it says with regard to foot pedals. We are talking about the 1973 ANSI standard?

A. Yes.

Okay. Foot pedal actuation prevention is in Section 4.2.4.1.4. It says, when a foot pedal is furnished with a press brake, a means shall be provided for preventing any accidental operation of the press brake.

And then in the right-hand column, which is the explanatory information, it says, two methods of fulfilling this requirement are: One, removing the foot pedal and placing it in a safe location; Two, providing a locking pin or locking lever as noted in Illustration 14.

These locking mechanisms should be designed to inhibit accidental actuation but not to allow locking in the operating position.

For additional operator safety and foot pedal-type operations, it is recommended that the

locking device, pin or lever be used to prevent actuation of the press brake when not in operation.

Q. Okay. But let's go back to the standard portion.

A. Uh-huh.

Q. Would you compare that standard, not the commentary but the standard, for foot pedal with the standard for foot control?

MR. ROBINSON: I am going to object to the form of the question. I don't think it is right for you to decide what the standard is and separate out the commentary on the standards. I think those -- I am making an objection.

MR. HARTMAN: I am sorry, Paul. You are correct. I shouldn't interrupt you.

BY MR. HARTMAN:

Q. Sir, would you agree that with regard to the ANSI standard, the standard has one level of analysis and the commentary is something else?

A. Yes.

Q. Okay. The standard is the standard that is to be followed, correct?

A. Yes, the commentary is not technically part of the standard. It simply illustrates and

clarifies.

Q. And sometimes it can confuse the commentary, am I correct, that somebody --

MR. ROBINSON: Hold on.

MR. HARTMAN: Let me finish my question.

BY MR. HARTMAN:

Q. Am I correct that the commentary is somebody's interpretation of what the standard really is, it is not ANSI's official interpretation of what their standard is because ANSI doesn't give official interpretations?

MR. ROBINSON: Well, I will object because you put in there sometimes it is confusing. You haven't mentioned any of the standards -- or excuse me -- the commentary that may be confusing. It is very misleading.

MR. HARTMAN: That's fine.

THE WITNESS: ANSI does give interpretations; and when they do give an interpretation, the interpretation becomes part of the standard.

BY MR. HARTMAN:

Q. But the interpretation becomes part of the standard, it is not the commentary?

MR. ROBINSON: Is there a question?

BY MR. HARTMAN:

Q. Am I correct the interpretation is not the commentary?

A. I think they are one in the same, though. The whole right-hand column of this standard is commentary, and it is explanatory information. And ANSI explicitly tells you at the beginning of the standard that the explanatory information is not part of the standard.

Q. Correct.

A. They will give, for example, they will give an example but they don't mean that the example they give is exclusive. There can be other things that are not included in the explanation that are equally as good examples.

Q. But the commentary is not something that ANSI indicates the manufacturer should rely upon, is it?

MR. ROBINSON: I will object to the form of that question.

THE WITNESS: I think a reasonable manufacturer would rely upon the explanatory information.

BY MR. HARTMAN:

Q. Does ANSI -- what is ANSI's position as it

relates to manufacturers relying upon the commentary?

A. If they didn't want the manufacturer to rely on it, it wouldn't be printed in the standard.

Q. Then what does ANSI mean when it says it is not part of the standard? What does ANSI mean when it says the commentary is not part of the standard?

A. Not part of the standard means that there was not a formal committee vote on the language.

Q. Right. And full committee vote is ANSI's approval of a position, an endorsement of the position, correct?

A. It is not ANSI's approval. It is the code committee's.

Q. The committee, okay. But you have to have the code committee's approval before you get ANSI's approval?

A. Just a matter of technicality.

Q. That's what we are here for.

A. ANSI doesn't approve any of the standards with their name on it.

Q. No --

A. And ANSI has been very careful about